



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,884	02/15/2001	Amit Phadnis	CSCO-002/94701	4202

26392 7590 12/21/2004

NARENDRA R. THAPPETA  
LONDON & STARK ASSOCIATES, ONE CRYSTAL PARK  
SUITE 210, 2011 CRYSTAL DRIVE  
ARLINGTON, VA 22202

EXAMINER

LESNIEWSKI, VICTOR D

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/785,884	<b>Applicant(s)</b> PHADNIS ET AL.	
	<b>Examiner</b> Victor Lesniewski	<b>Art Unit</b> 2155	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The amendment filed 9/13/2004 has been placed of record in the file.
2. Claim 4 has been amended.
3. Claims 51-58 have been added.
4. The applicant's arguments with respect to claims 1-50 have been fully considered but they are not persuasive. A detailed discussion is set forth below.

### ***Response to Arguments***

5. Claims 1-4, 8-10, 14-16, 21-23, 25, 29, 30, 35-40, 42, and 46-50 remain rejected under 35 U.S.C. 102(e) as being anticipated by Davis et al. (U.S. Patent Number 6,105,064). Claims 5-7, 11, 13, 17-19, 24, 26, 28, 31, 32, 34, 41, 43, and 45 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Chao et al. (U.S. Patent Number 5,964,837). Claims 12, 20, 27, 33, and 44 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Chao, in view of Simpson ("RFC 1661: Point-to-Point Protocol," July 1994).
6. In the remarks, the applicant has argued:
  - <Argument 1>  
  
Davis does not disclose aggregation of keep-alive messages generated by different end systems, and /or an aggregation device (different from the end systems) which aggregates the keep-alive messages.
  - <Argument 2>  
  
Davis does not disclose an aggregated reply packet as claimed in claim 2.

- <Argument 3>

Davis does not disclose the limitations of claim 4 as newly amended.

7. In response to argument 1, Davis does disclose all limitations set forth in independent claim 1. In stating that the system of Davis relates to sessions/connections established between two endnodes only, the applicant has overlooked a critical part of the system. As stated in the abstract, "The invention also supports multiplexing several logical connections over a single transport session and combining data from several connections in a single packet." For clarification, the applicant is directed to column 9, lines 14-35. Here, Davis states the ability of "services to set up multiple connections to several different endpoints at the same time." Thus, it is clear that functionality to aggregate keep alive messages generated by different end systems is present in Davis's system.

8. Furthermore, Davis does not need to show an aggregation device that is different from the end systems as this is not a limitation of the claim. There exists no reason why the "aggregation device" as claimed could not be co-located or combined with an endnode of the system. Davis discloses the aggregation in this way and still meets the limitations of the claim as previously discussed.

9. In response to argument 2, the system of Davis does include an aggregated reply packet as claimed in claim 2. It is clear that the system of Davis is able to transfer aggregated request and reply packets between nodes. This is discussed in general in column 2, lines 9-16 where packet acknowledgment is related to the fact that the endpoints of the system must "maintain state information to track the results of data transmissions." Davis is replete with examples wherein his system transfers state information between nodes. Communication and coordination

between nodes is accomplished by using “verbs” as well as an “ACP” functionality that reports “status codes.” For specific status codes, the applicant is directed to column 79, line 50 through column 81, line 41. Clearly, Davis includes the ability to indicate the status of sessions as claimed in claim 2.

10. In response to argument 3, Davis does disclose all limitations set forth in claim 4 as amended. Following the same line of thinking as above, Davis discloses “aggregation device” functionality at an endnode. Thus, when the system of Davis aggregates and sends a packet or message, it is akin to the claim limitation that states “sending from said aggregation device.” The applicant notes that in Davis messages “appear to be internally generated within the endnode, not in a third device.” Again, an aggregation device that must be completely separate from an endnode is not a limitation of the claim. Furthermore, although some packet data in Davis’s aggregation process may be internally generated from the same endnode, other packet data comes from other endnodes, utilizing the multiplexing functionality of the system as discussed above.

11. In addition, the applicant has argued that claims rejected under 35 U.S.C. 102 and 35 U.S.C. 103, but not explicitly discussed, are allowable based on the above arguments. Thus, claims disclosing similar limitations to the discussed claims and related dependent claims remain rejected under the same reasoning as presented above.

#### ***Claim Rejections - 35 USC § 102***

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 2155

13. Claims 51-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis.

14. Concerning claim 51, Davis has disclosed “The method of claim 1, wherein said aggregation device is in the path of all of said plurality of PPP sessions.” As discussed above, the multiplexing functionality of Davis’s system allows “services to set up multiple connections to several different endpoints at the same time.” See column 9, lines 14-35. It is clear that in order for all of the data for the PPP sessions to be aggregated it must pass through the “aggregation device.” In the case of Davis’s system, the data must be passed through aggregation functionality, whether it originates from a different end system or whether it originates in the end system where aggregation takes place. Thus it is inherent that the aggregation device be in the path of the session data to be aggregated.

15. In order to further support this inherency, Newton’s Telecom Dictionary 2002, as cited below, is introduced. Newton states the use of the same internode link in multiplexed packet switching despite the fact that data within a packet can have a different source and destination than other data in the packet. Here, “the same internode link” relates to the part of Davis’s system where aggregation occurs. See MPEP 2131.01.

16. Claims 52-58 set forth similar claim limitations and are rejected under the same rationale.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to the applicant’s disclosure.

- “Multiplexed Packet Switching,” Newton’s Telecom Dictionary, Harry Newton, February 2002, pg. 490.

Art Unit: 2155

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 571-272-3987. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*VL*

Victor Lesniewski  
Patent Examiner  
Group Art Unit 2155

*Hosain Alam*  
HOSAIN ALAM  
SUPERVISORY PATENT EXAMINER